



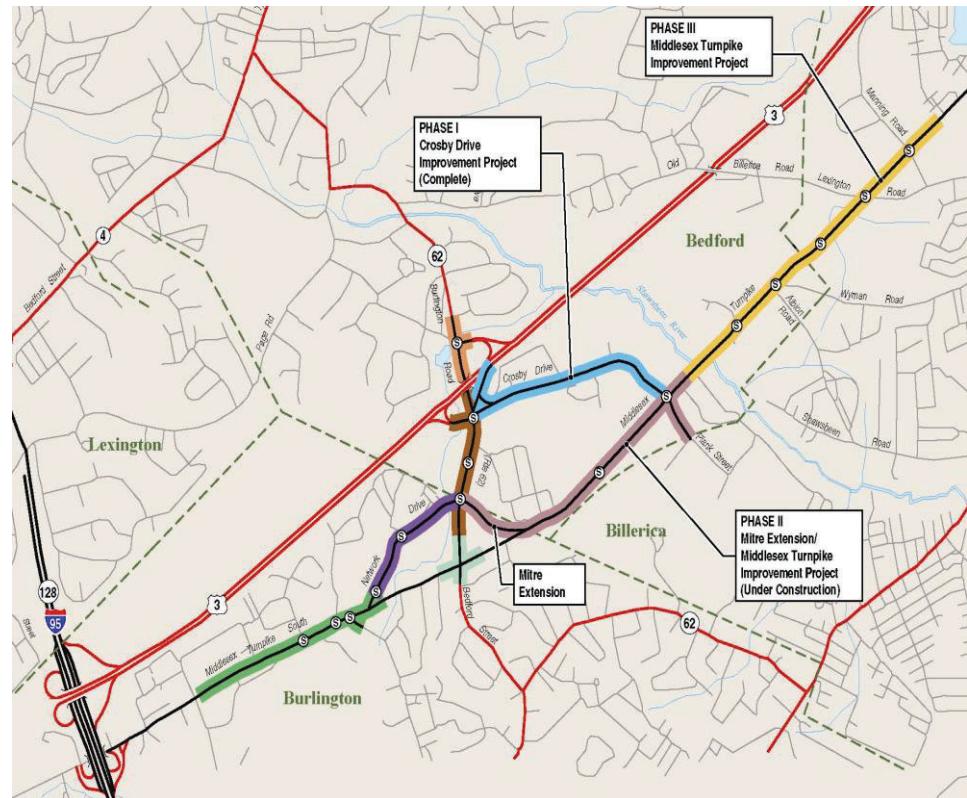
# **Bedford & Billerica Middlesex Turnpike - Phase 3 Transportation Improvements**

Project File No. 029492

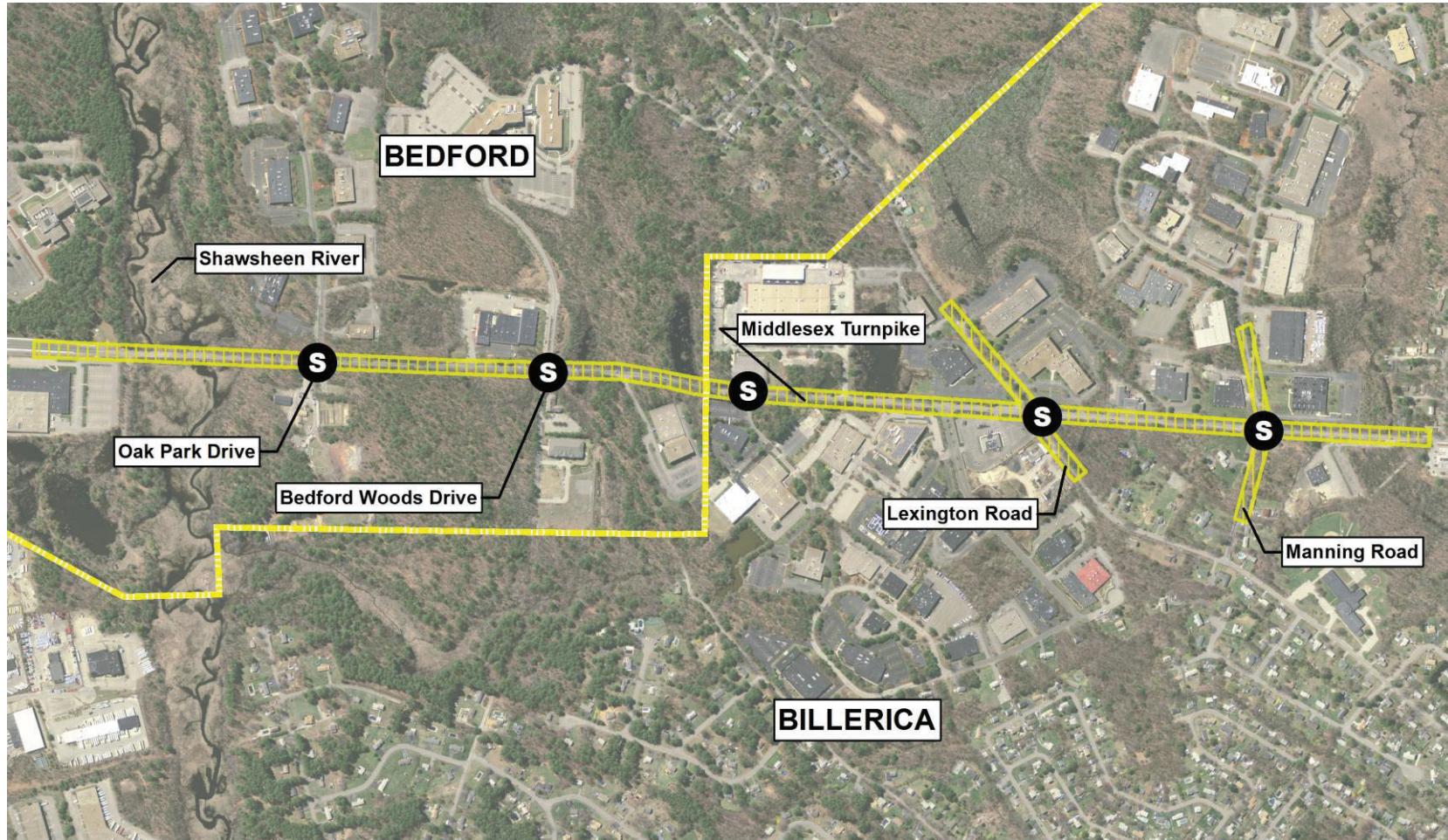
Contract No. 97932

# Project History

- **Phase I—Crosby Drive—029490:**  
Construction Complete 2007  
\$3,809,203.84 
- **Phase II—Middlesex Tpke—029491:**  
Construction Complete 2016  
\$11,683,387 
- **Phase III—Middlesex Tpke—029492:** 
  
- Network Drive 
- Route 62 
- Route 3 Northbound Slip Ramp 
- Route 3 Southbound Ramps 
- Middlesex Turnpike, Burlington 



# Project Location



# Existing Conditions

## Traffic Congestion

- 16,135 vehicles per day in 2015
- Level of Service E or F at major intersections
- Excessive delay at unsignalized movements
- One-quarter mile queues on mainline during peak periods



# Existing Conditions

## Intersection Safety

- No crosswalks present
- The Lowell Regional Transit Authority service the project area.
- Passengers are currently discharged onto the roadway shoulder with no refuge area.



# Existing Conditions

## No Bicycle or Pedestrian Accommodation

- Lack of Sidewalks
- Lack of shoulder striping
- Lack of access to businesses and restaurants for pedestrians



# Existing Conditions

## Shawsheen River Culverts

- Structurally Deficient
- Overtop During Flood Events



# Project Purpose

- Traffic Congestion
  - Relieve congestion by adding capacity and coordinating signals
- Intersection Safety
  - Improve intersection safety by adding signals, cross walks and curb ramps.
- Bicycle and Pedestrian Accommodation
  - Improve safety and increase usage by bicyclists and pedestrians by providing 5-foot bike lanes and accessible 5.5-foot sidewalks on both sides of the roadway

# Project Purpose

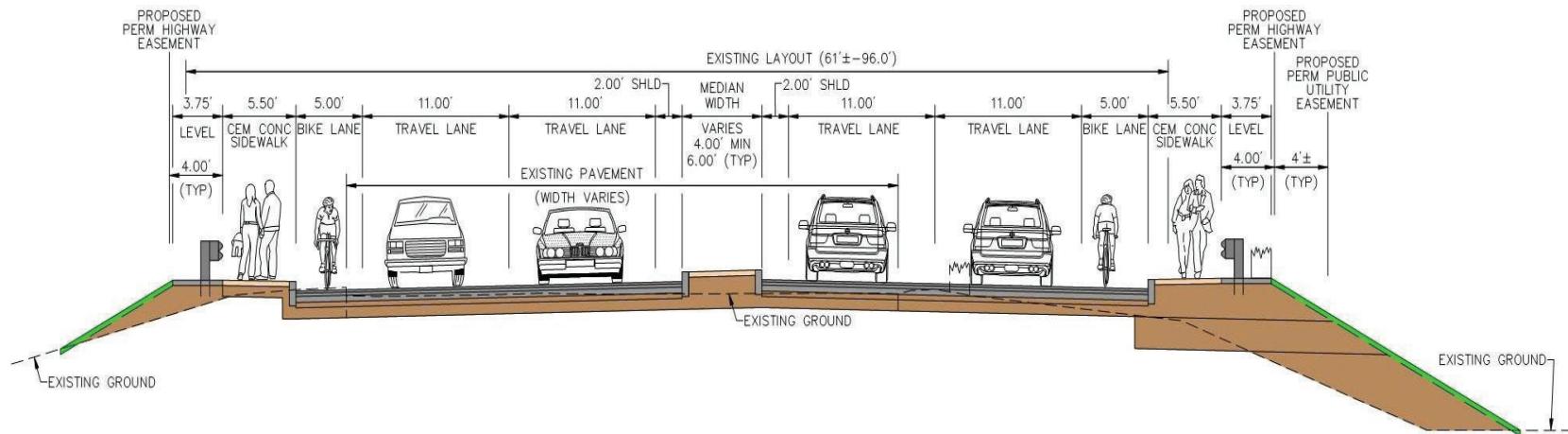
- **Shawsheen River Culverts**
  - Mitigate flood impacts by raising the roadway profile at the river and providing new precast concrete culverts.
- **Roadside Safety**
  - Improve safety by installing guardrail where required.
- **Drainage Deficiencies**
  - Eliminate ponding of water in the roadway by installing a new drainage system that complies with Stormwater Management Standards

# Project Scope

- Approximately 1.6 miles of roadway reconstruction
- The existing 2-lane roadway will be expanded to 4-lanes with turning lanes to add capacity
- Signalized Intersections at Oak Park Drive, Bedford Woods, 900 Middlesex Turnpike, Lexington Road and Manning Road
- Replacement of the Shawsheen River Culverts

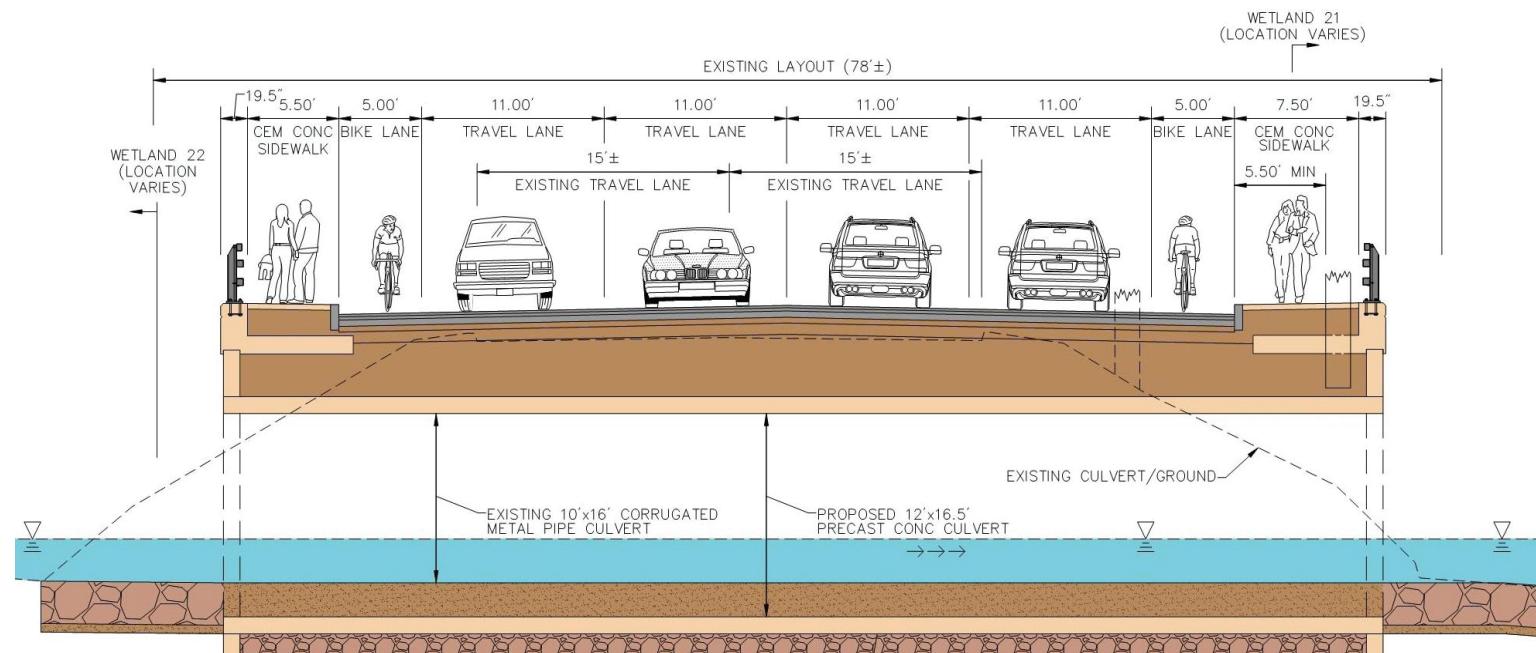
# Proposed Improvements

## Middlesex Turnpike Typical Section



# Proposed Improvements

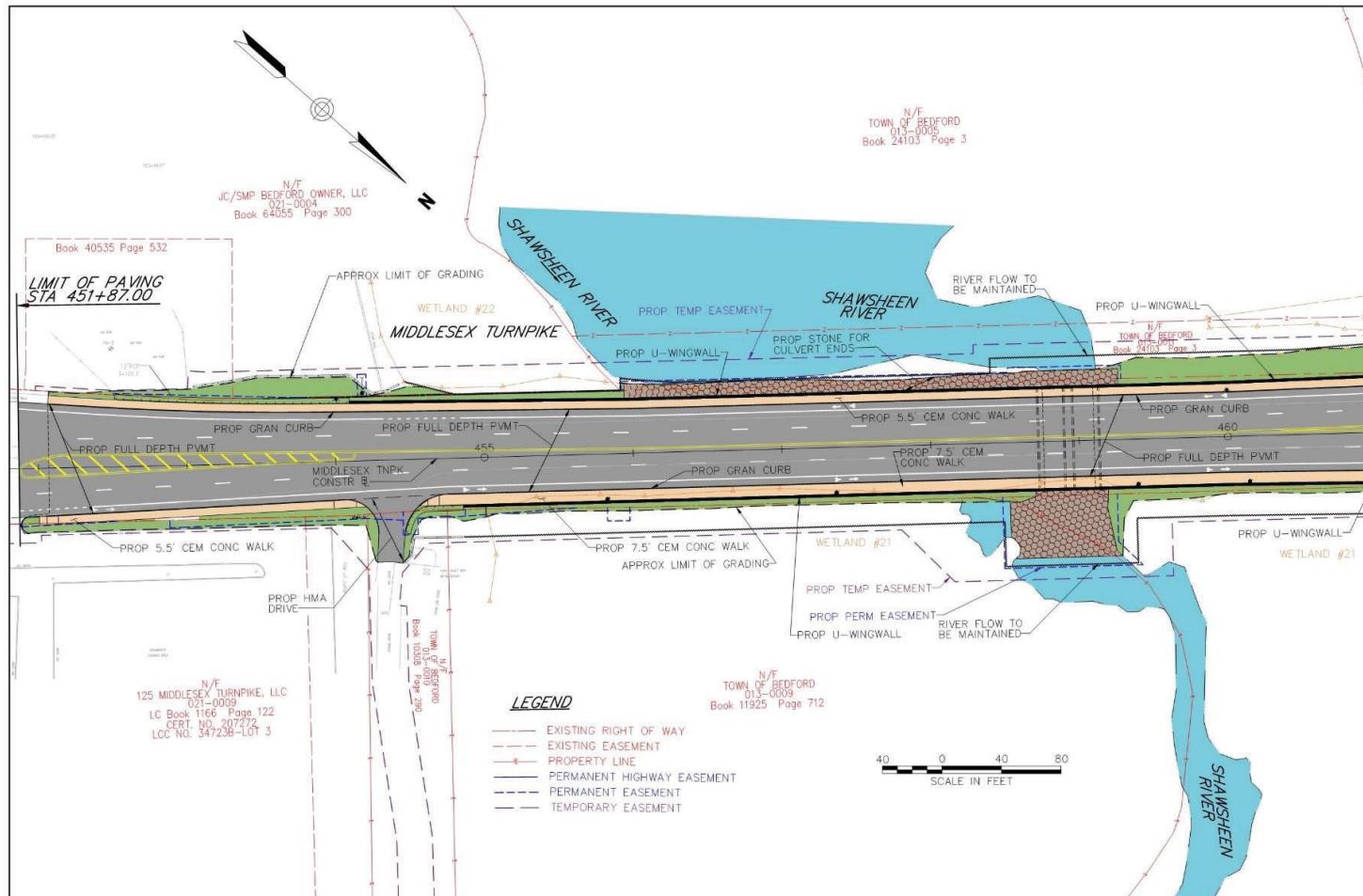
## Middlesex Turnpike Shawsheen River Culvert Section



# Proposed Improvements Signal at Oak Park Drive



# Proposed Improvements Signal at Bedford Woods Drive



# Project Team

## Municipality

Towns of Bedford & Billerica

Responsible for funding and administering the consultant design contract.

## Consultant Engineering Firm

Designer of Record - VHB

## MassDOT Highway Division

Responsible for administering the Design Process and providing Resident Engineer Services during Construction

## Federal Highway Administration

Responsible for Oversight



# Project Costs

Office Estimate: \$31,233,881.50

Low Bid: \$34,475,000.00

Low Bidder: Barletta Heavy Division Inc.

10.38% Above Estimate

## Other Bids:

- E T & L Corp. \$37,630,027.00
- Newport Construction Corp. \$39,967,000.00
- Baltazar Contractors Inc. \$40,058,978.40

## Contractor Performance

- At the time of the bid opening Barletta Heavy Division Inc. was prequalified in Highway Construction in the amount of \$250,000,000.
- A review of the Contractor Evaluation scores for Barletta Heavy Division Inc. on file with the Highway Division reflects an average score of 92.5.

# Project Costs

- This project was included in the SFY 2017 to SFY 2021 Capital Investment Plan in the amount of \$38,432,742
- Estimated Total Construction Cost:

Bid Amount	\$ 34,475,000.00
Contingencies	\$ 3,407,867.36
Traffic Police	\$ 1,000,000.00
Utility Relocations	\$ 2,357,291.15
<b>Total</b>	<b>\$ 41,240,158.51</b>

- The Bid Amount includes items of work that are to be funded by the municipality and therefore are not included in the CIP.
- Utility Relocation Costs are identified in a separate Program in the CIP (Retainage and Utility Payments).
- The Construction Duration is 2,000 Calendar Days from Notice to Proceed (5.5 Years).

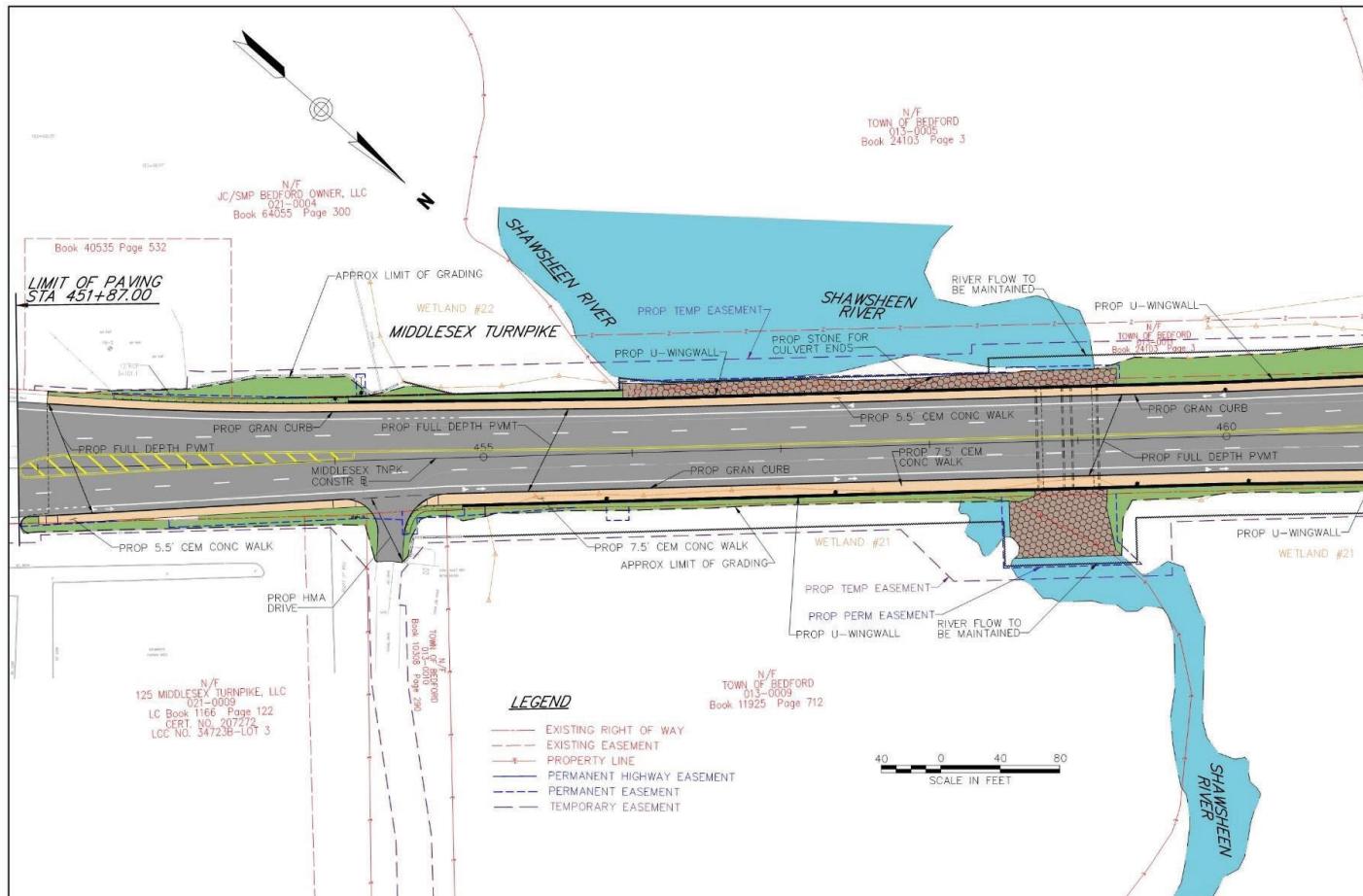
# DISADVANTAGE BUSINESS ENTERPRISE GOAL IS 11%

- Eastwind Corporation will furnish and install retaining walls in the amount of \$1,480,000.00.
- J.M. Fiske Environmental will prepare the Health and Safety Plan and provide environmental services in the amount of \$529,534.80.
- K. DaPonte Construction Corp. will install curbing, walkways and masonry in the amount of \$804,856.50.
- Medereiros Hydroseeding and Landscaping Construction, Inc. will provide landscaping services, in the amount of \$351,716.20.
- Saugus Construction Corporation will furnish and install bridge rail in the amount of \$676,800.00
- The aggregate value of this work is \$3,842,907.50 which represents 11.15% of the bid amount of \$34,475,000.00.

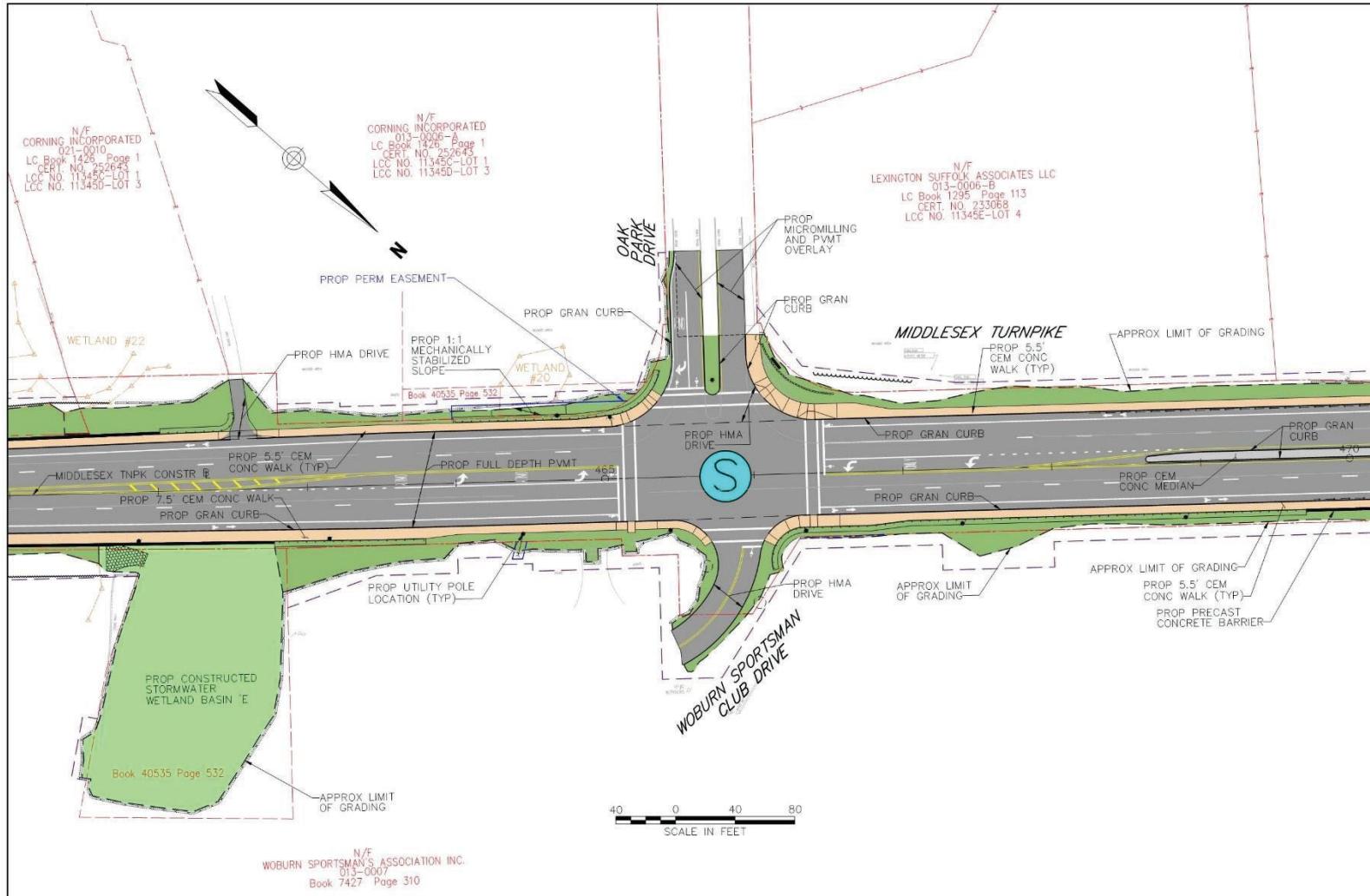


# Appendix

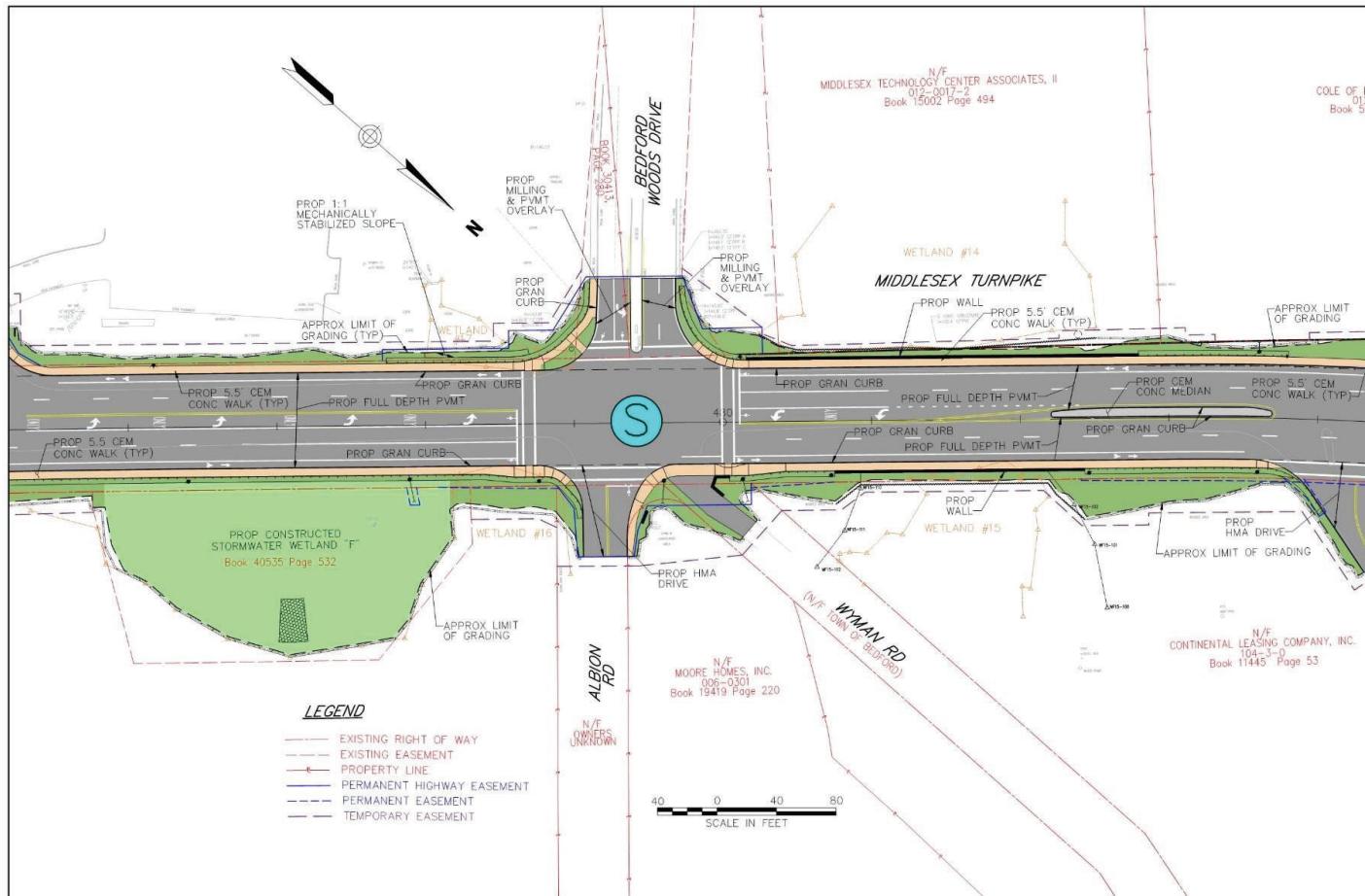
# Shawsheen River Culvert Crossing



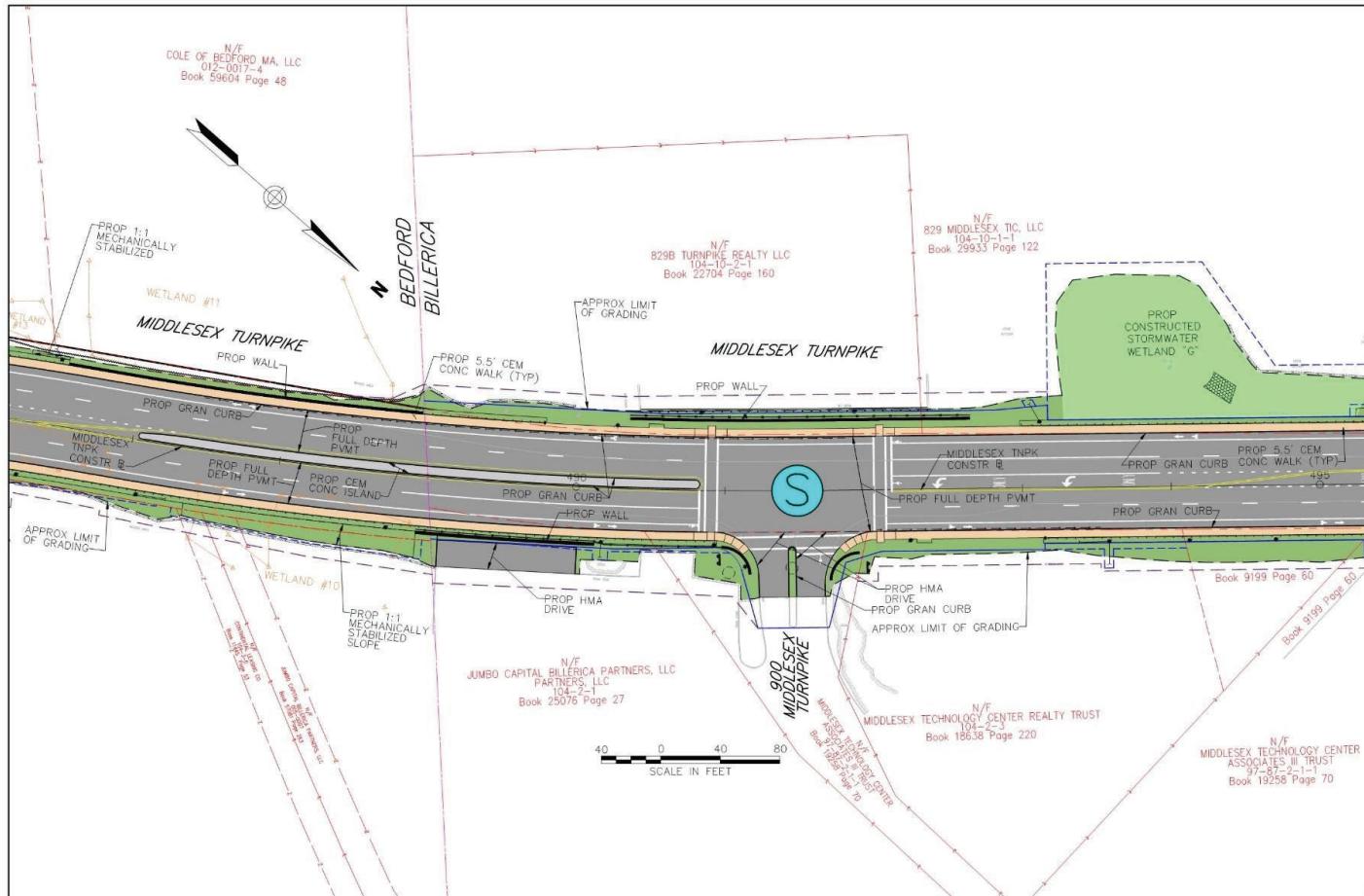
# Signal at Oak Park Drive



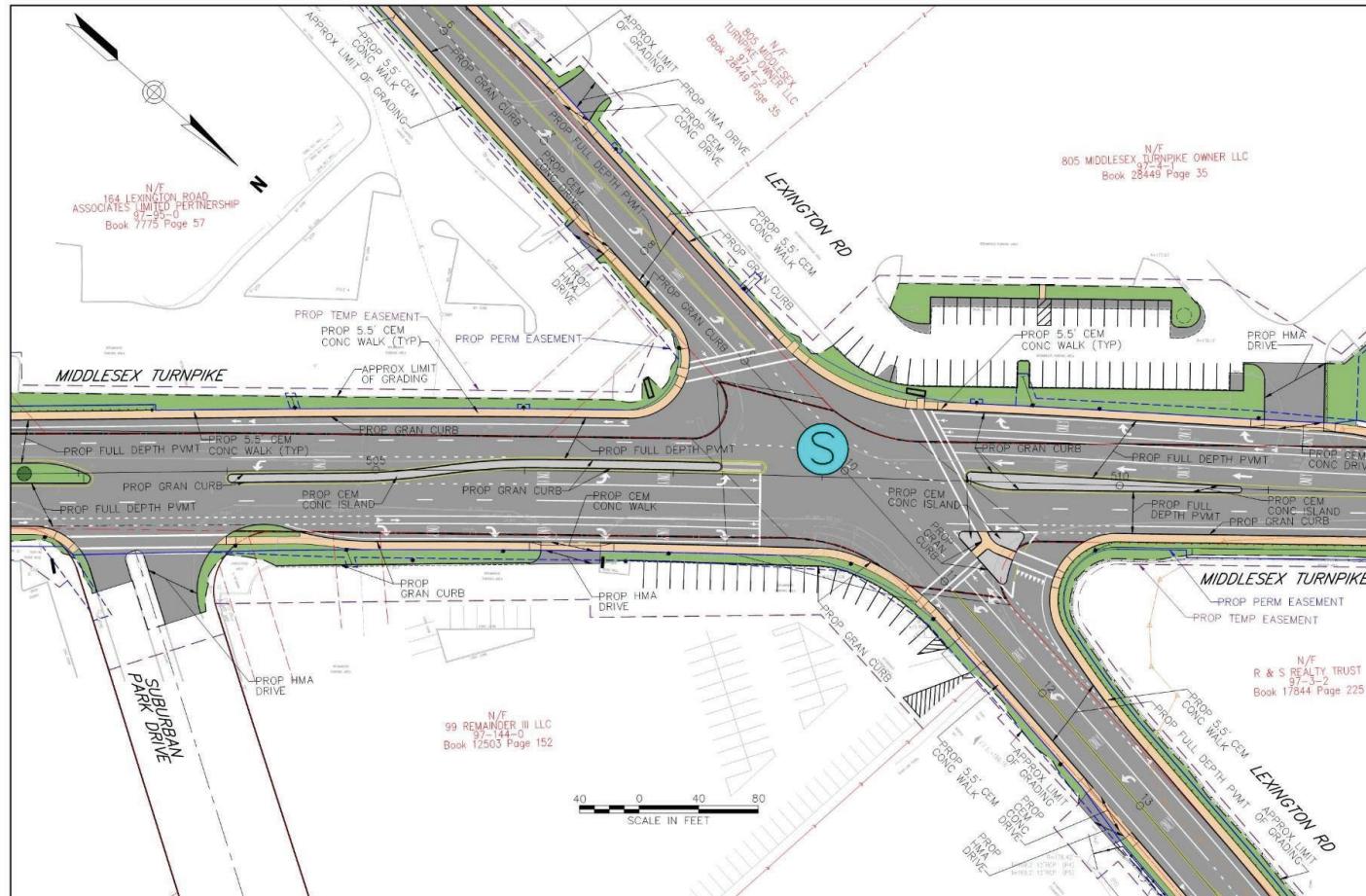
# Signal at Bedford Woods Drive



# Signal at 900 Middlesex Turnpike



# Signal at Lexington Road



# Signal at Manning Road

